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(54) Title: ADDITIVE COMPONENTS FOR LIQUID CRYSTALLINE MATERIALS

(57) **Abstract:** The present invention relates to mesogenic, cross-linkable mixtures comprising (i) a cross-linkable liquid crystalline host compound comprising at least one cross-linkable liquid crystalline compound, and (ii) at least one chiral or achiral rod shaped additive component, wherein said additive component has a rigid core and comprises at least two fused or linked, optionally substituted, non-aromatic, aromatic, carbocyclic or heterocyclic groups, and also comprises at least one optionally substituted alkyl residue, and at least one polymerizable group and wherein the additive component has a transition temperature to the isotropic state of 40°C or lower. The invention also relates to the novel chiral or achiral rod-shaped additive compounds used for the preparation of these mixtures, to mixtures according to the invention in form of an elastomer, polymer gel, polymer network or polymer film, to polymer networks and liquid crystalline polymer films prepared from these mixtures and to optical or electrooptical components comprising polymer networks and liquid crystalline polymer films prepared from such mixtures. Further, the invention relates to the use of the chiral or achiral rod shaped compounds as components of a cross-linkable liquid crystalline mixture in the production of orientated liquid crystalline polymers, to liquid crystalline mixtures comprising these compounds, to liquid crystalline polymers and liquid crystalline polymer networks prepared from such liquid crystalline mixtures, and to liquid crystalline devices comprising these compounds.

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